Helping Patients Help Themselves: How to Implement Self-Management Support

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I. Introduction and Background

Half of Americans with hypertension, and over 60 percent of those with diabetes and hyperlipidemia, do not have their conditions well controlled in spite of widely known clinical practice guidelines, effective lifestyle changes, and medications.\textsuperscript{1–3} One reason for this poor showing is a lack of self-management support: assistance for patients with chronic illness who need the knowledge, skills, and confidence to be active partners in their own disease control. The slow adoption of self-management support among primary care practices may reflect a number of challenges including the lack of:

- Training for staff who could provide self-management support and for the entire team to ensure broad understanding of the concept;
- Payment by Medicare, Medicaid, and commercial insurers;
- Education of senior leadership;
- Personnel (RNs, behavioral health professionals, pharmacists, LVNs, social workers, health educators, nutritionists, medical assistants, community health workers/promotoras, trained patients) with protected time to provide self-management support;
- A team structure that allows self-management support to be linked to specific clinicians and defined panels of patients;
- Primary care/behavioral health integration that better enables primary care practices to address the barriers to health behavior change; and
- Self-management support curricula in medical, nursing, and other health science schools.

This paper explores ways that various organizations have addressed these barriers, as well as the lessons learned and overall progress in making self-management support a routine function of clinical care for patients with chronic illness.

What Is Self-Management Support?
The Institute of Medicine defines self-management support as “the systematic provision of education and supportive interventions to increase patients’ skills and confidence in managing their health problems, including regular assessment of progress and problems, and problem-solving support.”\textsuperscript{4} Similarly, the Chronic Care Model defines self-management support as assisting and encouraging patients to become informed and activated participants in the management of their own chronic conditions. It considers self-management support a fundamental task of the clinical practice team.\textsuperscript{5}

Self-management support involves seven essential activities:

- Giving information;
- Teaching disease-specific skills;
- Negotiating healthy behavior change;
- Providing training in problem-solving skills;
- Assisting with the emotional impact of having a chronic condition;
- Providing regular and sustained follow-up; and
Encouraging active participation in the management of the disease.

Self-management support includes general education about particular chronic conditions, but goes well beyond it to include the teaching of disease-specific skills. Patients with diabetes who perform home glucose monitoring, understand the meaning of the glucose values, and know how to adjust diet, exercise, or medication doses in response to those values have better outcomes than people without those skills. Similar improved outcomes for people who have mastered disease-specific self-management skills are seen for patients with hypertension, asthma, and congestive heart failure. In contrast, comparisons of patients who are simply provided with education and those who are not show little difference in disease outcomes between the two groups for diabetes, hypertension, asthma, and medication adherence.6–9

A participatory relationship between physician and patient is one of the most successful factors promoting healthy behaviors.6,10 In a study of 752 ethnically diverse patients, information giving and collaborative decisionmaking were associated with better adherence to medications, diet, and exercise.11 For patients with diabetes, there are significant associations between information-giving, participatory decisionmaking, healthier behaviors, and better outcomes.12,13 The more actively the patient is involved, the higher the level of adherence and the greater the chance that the patient engages in healthy diet and exercise behaviors.14,15

Self-management support is best provided by a team because clinicians (physicians, nurse practitioners, and physician assistants) are unable to address it fully in the rushed 15-minute visit. It has been estimated that it would take a physician 7.4 hours per working day to provide all recommended preventive services to a typical patient panel, and an additional 10.6 hours to provide high-quality chronic care.16 The greater the number of competing demands in visits involving patients with diabetes, the poorer the glycemic control.17 Unfortunately, clinicians fail to provide adequate information to patients and to engage in collaborative decisionmaking because they do not have time.18–21 Acute concerns crowd out chronic care management, a phenomenon sometimes called the “tyranny of the urgent.”22

Research is inconclusive, however, regarding the effectiveness of the behavior change component of self-management support. Some literature suggests a benefit if patients choose a goal and agree on a concrete action plan that moves toward the goal.23–25 The American Diabetes Association, American Association of Diabetes Educators, and American Heart Association recommend goal-setting as an important behavior change strategy.

Sustained follow-up of lifestyle and medication behaviors is a necessary feature of self-management support. Patients with diabetes who are regularly followed have better HbA1c levels than those without follow-up. Because the benefits of self-management support for diabetes patients diminish over time, regular follow-up is needed, and the total time caregivers spend with patients correlates with glycemic control.26 Similarly, regular follow-up is necessary for hypertension and heart failure management.7,27

Health coaching has become a recognized feature of clinical practice for patients with chronic conditions, and well-trained coaches can provide all seven components of self-management support. Many training curricula for coaching and other aspects of self-management support are available (see Appendix A). Health coaching is both a function and a job category.28 All members of care teams ideally integrate elements of coaching into their interactions.
with patients. However, to ensure that coaching takes place, at least one team member should be designated as a coach. Health coaches can be nurses, social workers, medical assistants (MAs), community health workers (promotoras), health educators, premedical student volunteers, or other patients.

It is important to note that health coaching—and all aspects of self-management support—can occur outside as well as inside health care organizations. They can take place in communities, homes, schools, churches, and libraries, using face-to-face interactions, groups, Web sites, cell phones, and other modalities. One function of health coaches and health navigators within medical practices is to link patients with these outside resources.
II. Case Studies of Early Adopters

To learn more about how self-management support is being implemented in primary care organizations, 42 early adopters of self-management support were identified and surveyed. Thirty-eight subsequently provided extensive information.

The survey revealed a number of broad findings, including the following: The most common conditions for which self-management support is being implemented are diabetes, hypertension, and obesity. The primary care team members most commonly offering self-management support are RNs, physicians, nutritionists, health educators, and nurse practitioners/physician assistants. In only eight of the organizations do MAs provide self-management support. Twelve organizations have at least one team member providing self-management support full-time; most dedicate considerably less staff time. For 28 of the organizations, self-management support is an expense and not a revenue source, and 24 organizations reported that self-management support is not financially sustainable.

The following case studies provide more detail on ways that specific organizations are implementing self-management support and what they consider to be their lessons learned.

UNITE HEALTH CENTER IN NEW YORK CITY: A MEDICAL ASSISTANT MODEL

UNITE Health Center is a free-standing primary care clinic founded by the International Ladies’ Garment Workers’ Union in 1914 as the first labor union-owned health center in the country. It serves 10,000 patients—members of several unions and their families—and provides 55,000 office visits and 20,000 ancillary services each year. A variety of reimbursement models have been negotiated with the different health and welfare funds, but each fund pays a monthly capitation fee (either alone or in addition to a fee-for-service payment) for union members. The capitation payments enable the health center to provide services such as self-management support that are not billable in a fee-for-service system.

The clinic provides self-management support to 30 to 40 percent of its patients for diabetes, asthma, hypertension, and hyperlipidemia and also offers it for weight management and smoking cessation. RNs, a nutritionist, and medical assistants (called patient care assistants, or PCAs) who have been trained and promoted to the job of health coach perform the support functions.

In 2005, the Health Center transferred most of the responsibility for self-management support to its health coaches, many of them culturally and linguistically concordant with their patients. Four health coaches each spend ten to 20 hours per week on this activity, and two health coaches are available as backup. The coaches are less expensive than RNs or certified diabetes educators (CDEs).

The clinic developed a nine-month training curriculum, four hours per month, supervised by the nursing staff and nutritionist. Subjects include common chronic conditions (diabetes, hypertension, hyperlipidemia, asthma, obesity, and tobacco use), motivational interviewing, the elements of self-management support, and working cooperatively in teams. Health coaches use the chronic disease registry to identify patients requiring care management.

The Health Center uses the teamlet model to link primary care clinicians with health coaches.
Two-person teamlets function within larger teams (clusters), each of which includes about six primary care clinicians. The clinicians introduce patients to the health coaches so that patients learn to trust and rely on the coaches.

Providers and coaches communicate throughout the day. In the morning huddle, cluster members review the patients on the clinician and health coach schedules, and health coaches follow up with clinicians on their previous day encounters. Health coaches have their own daily schedule of patients. They may meet with patients before or after the clinician visit, though they rarely attend the visit itself. Coaches may make pre-visit phone calls to help patients prepare for the clinician visit. One health coach in each cluster facilitates flow and steps in to do health coaching if needed.

Health coaches meet with patients in person and perform phone follow-up to check on self-management goals and to monitor home blood pressures and glucose measurements. They also lead groups in which patients can interact with one another. Team meeting time is used to discuss difficult cases so that the health coaches can continue to work even with complicated patients. Nurse practitioners, nurses, and clinic managers help the health coaches build confidence and train or retrain them as they grow in their roles. Without such oversight, the coaches tend to lose the skills they acquire in their initial training period.

From 2005, when the coaching program began, to 2009, more than 500 patients with diabetes showed a statistically significant increase in the percentage with HbA1c less than 7 percent, blood pressures below 130/80, and LDL cholesterol less than 100. The number of patients with all three of these values at or better than goal—a difficult measure to achieve—rose from 13 to 36 percent. Health spending in 2007 for one group of union members followed at the Health Center was 17 percent less than for 3,000 union members not followed at the Health Center; and emergency room costs were 50 percent lower for the Health Center group.

Self-management support is an expense to the organization, however, and it is financially viable only for patients for whom the clinic receives a capitation payment. The expanded role of the PCAs has allowed the Health Center to offer self-management support with very few nurses, reducing the cost of the service and allowing the capitation dollar to be used for more services. Because the Health Center initiated a number of improvements between 2005 and 2009, it is unclear to what extent health coaching was responsible for these cost reductions.

UNITE Health Center, whose payer is the same as the provider, hopes that sustaining self-management support will reduce overall health care costs.

PROJECT DULCE IN SAN DIEGO: A COMMUNITY HEALTH WORKER (PROMOTORA) MODEL
Project Dulce provides outreach, education, screening, diagnosis, and clinical care to low-income people with diabetes. In operation since 1997, Project Dulce was developed by the Scripps Whittier Diabetes Institute of the nonprofit Scripps Health, which includes five hospitals, more than 2,000 affiliated physicians, and home health care. Project Dulce has historically served more than 18,000 people, mostly Latino. The program has been adapted to the African American, Filipino, and Vietnamese communities and has led trainings to operate similar programs in several states and California counties.

Project Dulce’s approach is a mixed community and primary care-based model, combining RN care management and peer-led education classes. People
with diabetes are referred by primary care providers from 17 community health centers. Each participant is linked to an RN care manager who is colocated in the primary care site and is in regular contact with the primary care provider; participants whose diabetes is under poor control receive intensive services from an RN/CDE plus dietician team. All participants are encouraged to join an eight-week group self-management support class taught by trained community health workers/promotoras. The classes, in English and Spanish, cover the basic concepts of diabetes, healthy eating, exercise, and medications. A 2004 evaluation of Project Dulce found that 56 percent of participants join the classes, though many fail to attend all the classes.30

Peer-led classes primarily take place at the primary care site; there are also classes at senior centers, elementary schools, and free clinics. RNs order and review laboratory studies, do foot exams, refer for eye exams, and manage medications in consultation with the primary care provider.

The self-management support aspect of Project Dulce takes place in both the peer-led classes and the RN visits. Care managers and health workers provide information, teach diabetes-specific skills such as home glucose monitoring, assist participants with behavior change, and encourage them to actively address their disease. The peer educators have diabetes themselves, and they must complete a four-month training and mentoring program. Peer educators are paid an hourly rate similar to that of MAs. Each new peer educator instructs a class with an experienced educator before teaching classes alone. Classes are conducted in the primary language of the participants.

In 2004, Project Dulce published results from 153 patients at six community clinics, compared with 76 matched controls. Twenty-six percent of the Project Dulce participants were covered by Medi-Cal and 15 percent by the County Medically Indigent Adult program, while 59 percent were uninsured. Seventy-two percent were Latino, and 68 percent had annual incomes less than $10,000.30 After one year, the Project Dulce group showed significant improvements in HbA1c, LDL cholesterol, and diastolic blood pressure versus no significant changes in the control group. A follow-up study of 188 Project Dulce patients and 160 matched controls yielded the same findings, with average HbA1c levels dropping by 1.2 percent in the Project Dulce patients compared with 0.5 percent in control patients.31

A 2008 study found that 33 percent of Project Dulce participants had significant depression, but that those receiving support from a social worker or depression care manager significantly improved their PHQ-9 depression scores. Depression care managers share culture and language with the participants they care for.32

Project Dulce has worked hard to develop financial sustainability for its services. Since 2000, it has received reimbursement for medically indigent adults from San Diego County for the peer-led diabetes classes, about $22 per patient per class. Some Medi-Cal managed care plans also pay for the classes. Some of the clinics that Project Dulce works with—which may receive reimbursement for Project Dulce services performed at their sites—have developed sliding scale fees for diabetes care, including access to the classes. However, these sustainable funding streams would not be sufficient to support the entire Project Dulce program unless a large number of classes with many participants were taking place.

Data showing that the cost of care for patients receiving self-management support is lower than that for those not receiving it would be useful to persuade insurers to pay for self-management support. Project Dulce published a cost study in 2005 showing
that participants incurred an average annual cost of $5,711 compared with $4,365 for a control group. Project Dulce patients had substantially lower hospital and emergency department costs but markedly higher pharmacy costs as a result of improved care and better medication adherence. These data have been updated, and patients managed by Project Dulce using lower-cost and generic medications now have lower overall health care costs. The savings support the entire cost of the program.

**MERCY CLINICS IN DES MOINES, IOWA: AN RN MODEL**

Mercy Clinics is a 150-physician multispecialty group practice with about 20 primary care sites in Des Moines, Iowa, and neighboring communities. It is affiliated with Mercy Medical Center, a not-for-profit tertiary hospital in the city. Mercy Clinics has been engaged in practice improvement initiatives for almost ten years and was the national recipient of the American Medical Group Association’s Acclaim Award for high-quality patient-centered care in 2008. It has been a pioneer in the development of health coaching, including self-management support.

Dr. David Swieskowski, currently CEO of Mercy Clinics, initiated the health coaching innovation in 2003. At first, RNs, LPNs (known as LVNs in California), and MAs were trained as health coaches. Experience showed that RNs are best suited for health coaching and more easily trained than MAs; about 20 of the 25 current coaches are RNs.

In addition to providing direct self-management support, the health coach’s role includes:

- Overseeing the disease registry, including panel management (outreach to patients overdue for recommended chronic or preventive services);
- Conducting pre-visit chart review to flag for clinicians issues that need to be addressed and to order indicated lab or imaging studies using standing orders;
- Coordinating primary, specialty, hospital, and home care; and
- Participating in and sharing responsibility for quality improvement.

Self-management support takes place after the clinician visit, often through follow-up phone calls. It primarily addresses patients with inadequately controlled diabetes or hypertension, though coaches also assist with conditions such as asthma and regimens such as warfarin therapy. The coaches, trained in motivational interviewing and behavior change, assess patients’ readiness to change and assist them in setting goals and agreeing on concrete action plans.

Follow-up phone calls or emails check on the patients’ lifestyle and medication adherence to the care plan. Meanwhile, health coaches offer disease-specific information. As a result of the health coaching innovation within an overall culture of improvement, Mercy Clinics has achieved excellent clinical outcomes for diabetes, hypertension, and lipid control.

The logistics of integrating self-management support into the primary care workflow are simple. Coaches spend most of their time with the four functions listed above. These can be interrupted, however, so that a clinician seeing a patient in need of self-management support can easily find a health coach to immediately do a face-to-face visit and arrange phone or email follow-up. The number of health coaches per clinician varies from site to site, and each office decides how many health coaches to hire.
Health coaching is financially sustainable for Mercy Clinics and creates considerable revenue over costs. How does it work?

Self-management support is wrapped in other activities that produce fee-for-service revenue. Without the health coaches’ revenue-creating activities, self-management support would not be sustainable. Mercy Clinics uses six strategies to increase billings and collections:

- By engaging in panel management (working the registries), health coaches encourage patients to come for needed chronic care follow-up physician visits that they might otherwise not schedule. Many more diabetes patients come to their regular visits, bringing in more revenue.

- Similar outreach to patients to obtain lab tests at the intervals recommended by clinical practice guidelines brings in additional lab revenue.

- The pre-visit chart reviews uncover services needed by patients, increasing the intensity of physician visits and allowing more visits to be billed at the higher-paying 99214 code rather than the 99213 evaluation and management code.

- Mercy Clinics’ largest commercial payer has a pay-for-performance (P4P) program that brings in considerable revenue because of the high quality of chronic and preventive care services made possible largely by the pre-visit chart reviews, panel management, and self-management support. One physician commented that the health coaches bring in money from P4P without physicians having to do any additional work.

- Some commercial insurers and Medicare will pay for health coach visits using the 99211 billing code. These are considered “incident to” encounters, meaning services provided by a nonphysician practitioner as follow-up to a physician visit that are integral to the services furnished by the physician. “Incident to” encounters can be provided by RNs or MAs and can be billed using the 99211 code, at about $20 per encounter.35,36

- Mercy Clinics negotiated a $54 per encounter payment for health coaching with its largest commercial insurer. Even though the insurer stopped making this payment, Mercy Clinic feels that practices can and should approach insurers to pay for self-management support services.

Overall, Mercy Clinics has generated $4 in revenue for every $1 spent on health coaches’ salaries and benefits. Such a favorable return on investment may not hold up in states such as California where RN salaries are much higher than in Iowa, but carefully trained MAs could provide health coaching in such areas.

**CARESOUTH CAROLINA: A CULTURE CHANGE MODEL**

CareSouth Carolina is a private nonprofit Federally Qualified Health Center (FQHC) with ten primary care sites in small towns in rural northeastern South Carolina. Starting as a one-physician office in 1980, CareSouth Carolina now has more than 280 employees serving 35,000 patients. About 45 percent of the patients are Medicaid recipients, and 40 percent are uninsured.

In the 1990s, CareSouth Carolina became a leader in the improvement collaboratives sponsored by the Institute for Healthcare Improvement (IHI) and federal Bureau of Primary Health Care.37 Ann Lewis, CEO of CareSouth Carolina, has become a national leader in transforming community health centers into high-quality continuous learning organizations, basing many of her innovations on the
Dartmouth clinical microsystem approach to practice improvement (www.clinicalmicrosystem.org).

CareSouth Carolina has a different approach: It is the job of every person in the health center to make sure that every patient receives self-management support for asthma, coronary heart disease, depression, diabetes, and hypertension. Rather than designating an RN or MA as the person providing self-management support, this approach gives everyone responsibility. Providing self-management support is as routine and expected as measuring pulse, blood pressure, and weight.

The core elements of this self-management support are setting goals and action-planning plus disease-specific patient education and skills-training. The logistics are relatively simple. MAs initiate goal-setting discussions in the pre-visit. If the patient has never set a behavior change goal or made a specific action plan, the MA starts the discussion and offers help. If the patient prefers to discuss this step with the clinician, then it becomes the clinician’s responsibility. If the patient has already agreed on an action plan, the MA checks to see whether the patient is fulfilling the plan and may suggest modifying it. Patients experiencing major barriers in making behavior changes are referred to a care manager for problem-solving, as neither the MA nor the clinician has time to address these barriers. With this approach, about 90 percent of patients with the five targeted chronic conditions engage in goal-setting discussions.

Because disease-specific education and skills-training take more time, the care managers handle this component. CareSouth Carolina’s care managers are LPNs, MAs, and peer educators who are patients of the health center. They are trained in the five chronic conditions, goal-setting, and problem-solving. Each site has at least one care manager.

CareSouth Carolina assigns responsibility for a panel of patients to a care team. Each panel has about 2,000 patients per full-time equivalent (FTE) clinician, well above the usual community health center panel of 1,200. The large panels are possible because CareSouth Carolina has a high support-staff-to-clinician ratio. Each team has one clinician, one LPN, and one MA, with one care manager shared between two teams. The team structure varies among large and small sites.

CareSouth Carolina is noted for the high quality of its chronic disease care. The health center’s patients have been surveyed to determine whether they feel confident that “myself and my medical team can manage my health care together.” The proportion of patients who agree with that statement has gone from about 40 percent to 90 percent in three years.

Because self-management support is the job of all team members, the goal-setting component does not require additional staff, allowing this work to take place without the need for a business case. The care managers could be considered additional personnel creating additional expenditures, but CareSouth Carolina uses a cost-based FQHC Medicaid payment model. Thus, if the average cost per visit increases due to increased support staff, those costs are recovered through Medicaid payments.

FQHC payment is likely to change with the coming of Medicaid managed care and patient-centered medical homes in South Carolina. In a 2000-2001 state analysis of total health care costs for patients with diabetes, CareSouth Carolina’s patients had markedly lower hospital admission rates and total health care costs compared with other providers. Medicaid managed care plans are expected to share such savings with their providers, establishing a potential new source of funds for the health center. In addition, the medical home network of which CareSouth Carolina is a member will be paying a
care management fee of $10 per member per month, creating yet another revenue source. Whatever the details of the emerging payment structure, CareSouth Carolina feels confident that self-management support is financially sustainable.
III. Telephonic Models of Self-Management Support

Health plans have tended to contract with disease management companies, entirely separate from primary care, to provide telephone self-management support. No firm evidence, however, has demonstrated improved disease outcomes or cost savings from contracting out to disease management operators based on telephone-only interactions with patients.38 The trend toward bringing self-management support into primary care is growing.

Both the telephone and the Internet are powerful tools for self-management support. Work hours, childcare needs, or poor access to transportation prevent many patients from getting self-management support. Internet-based self-management support lowers these logistical barriers, though low-income patients with limited health literacy may find the telephone a better way to bring such support into the home. A survey of patients with diabetes in safety-net clinics showed that 69 percent preferred the telephone to group visits or the Internet for their health communication needs.39 This case study reviews three phone-based self-management support models.

IDEALL Project

IDEALL (Improving Diabetes Efforts Across Language and Literacy) is an automated telephone self-management support service for patients with diabetes. It was developed for the Community Health Network of San Francisco.40 IDEALL is based on an automated telephone self-management (ATSM) system that contacts patients weekly at their preferred times, in their preferred language (English, Spanish, or Cantonese). The automated phone messages ask about exercise, medications, self-monitoring, mood, and coping. Patients use a phone pad to respond, triggering immediate automated health education messages and, in some cases, nurse care manager phone follow-up. Care managers also communicate with the patient’s primary care provider.

Here is a sample interaction:

“In the last seven days, how many days did you test your blood sugar by pricking your finger?” Patients entering “0” receive a call back from a care manager. Those entering “0 to 2” are told “Testing your blood sugar lets you know if your blood sugar is too high or too low. You should write these numbers down and talk to your doctor about them. A good time to test your blood sugar is before meals. At least check your blood sugar every morning. It’s never too late to start!” Those entering “3 to 6” are told “Keep up the good work!” and reminded to test blood sugars before meals and each morning. An entry of “7” or more prompts a simple “Great.”

In the initial IDEALL study, patients responded to 50 to 60 percent of calls, and 50 percent of those triggered interventions by the care manager. Thus, ATSM allows staff to double their caseload. The system showed greater patient participation and engagement when compared with usual care and group visits. Participating clinicians said the IDEALL project led to improved patient activation, and 88 percent felt that ATSM should be expanded. While no HbA1c differences were found between ATSM, group visit, or usual-care groups, quality-of-life outcomes such as increased self-efficacy and fewer days in bed were more positively affected by ATSM.40
The ongoing costs of ATSM (not including startup costs) were an estimated $277 per patient per year.\(^41\)

**Tobacco Quitlines**

Even though self-management support through brief motivational counseling can help smokers to quit, few physicians actually counsel smokers.\(^42\), \(^43\) Tobacco cessation telephone quitlines offer an easy way for practices to provide self-management support to smokers. Quitlines exist in all 50 states, and many counsel in multiple languages.

Participating in three or more quitline counseling sessions increases the odds of quitting compared with receiving self-help materials, brief advice, or pharmacotherapy.\(^44\) The American Cancer Society quitline found that 44 percent of patients who received at least one counseling session were not smoking by the last call, and an additional 15 percent had significantly cut back.\(^45\) Despite this evidence-based, government-subsidized, and easily available intervention, primary care practices underutilize quitlines.\(^46\)

Quitline counseling sessions typically last from ten to 40 minutes. They address motivation, suggest quit aids and coping strategies, set a quit date, and offer relapse prevention skills.\(^45\) In 2008, 56 North American quitlines received 428,027 calls from tobacco users.\(^47\) Counseling staff—psychologists and counselors with formal counseling degrees—receive over 60 hours of initial training, thus providing more skilled counseling than primary care can offer.\(^45\)

A key role of primary care is to encourage the use of quitlines, ideally by having MAs identify smokers, advise cessation, assess readiness to quit, and, when appropriate, fax a quitline referral. When this process was tried in Virginia, 12.5 percent more smokers received smoking cessation support than controls.\(^48\) MAs or health coaches in primary care should call patients to see if they followed through.

The California Smokers’ Helpline is funded by the California Department of Public Health from money designated through ballot propositions. Just as quitlines are growing in popularity—515,000 smokers (a 130-percent increase over 2005) accessed them in 2009—recession-driven state budgets are cutting back their support.\(^49\), \(^50\)

**Health Dialog**

Many commercial companies provide telephone-only self-management support entirely separate from primary care, though no conclusive evidence has found that these companies improve outcomes.\(^38\) Health Dialog has provided services to about 24 million insured patients, using a phone-based health coach model supplemented by Internet-based decision-support tools.\(^51\) Since nearly 75 percent of U.S. households have Internet access, most patients can easily receive cognitive-based health information through Internet portals. Nevertheless, the telephone offers a more direct route than the Internet for providing health behavior support and may work just as well with employed and insured patients as with the underserved.\(^52\) Health Dialog’s mission is to lower costs for its private and government insurance plan clients by activating patients to become more involved in decisions affecting their care.

Health Dialog’s health coaches are mostly RNs, with some respiratory therapists, pharmacists, and dieticians. Each patient is matched with one coach for an ongoing relationship. The coach uses active listening strategies to focus on the whole person and not just the chronic condition. Coaches do not provide medical advice but offer guideline-based health information to help patients with chronic conditions better prepare for their doctor visits and make informed medical decisions. They also help patients create personalized health behavior strategies.
Internet resources include email reminders, multimedia tools to help patients compare treatment choices, a health risk assessment tool that generates a health action plan with feedback to the coaches, a personal health record, and a healthcare information database. One patient was quoted as saying, “My primary care physician doesn’t call me. Specialists? They don’t call. But Rima [the coach] will call as often as I like.”

Unlike models that integrate health coaches into primary care, Health Dialog coaches have limited contact with providers, instead gaining outside information about patients through insurance claims data. Health Dialog informs providers by mail when patients first contact their coaches, may provide updates, and reports poor medication adherence.

Since Health Dialog’s services are paid for by insurance plans, they are free to patients and providers. Health Dialog data show that the costs of care are lower for patients with more intensive telephone coaching. The company claims that it saves insurance plans money because the patients require fewer emergency department visits and have better health outcomes due to improved health behaviors.

**Discussion of Telephonic Models**

Self-management support by telephone is convenient for patients, and it can be provided at relatively low cost. Convenience may explain why patients with diabetes report more improved self-efficacy and quality of life with ATSM than with group visits. It may also explain the popularity of tobacco quitlines, especially when used in conjunction with primary care teams advising smokers to quit. Telephone-based self-management support allows multilingual, highly trained providers to access more patients more easily. It also can provide one-on-one support to a greater number of patients than face-to-face counseling, and it is more interpersonal than typical Internet modes.

Someone must pay for telephone-based self-management support, however. Taxpayers support government-sponsored tobacco quitlines, and insurance companies support models such as Health Dialog. One Medi-Cal managed care insurer, San Francisco Health Plan, is supporting ATSM. The transfer of self-management support costs to insurers or governments allows primary care practices to offer these services at little or no cost, relieving them of financial barriers to offering such programs.
IV. Behavioral Health Models

Daily life with a chronic disease involves cognitively driven actions and practical issues, as well as a social milieu and an emotional context. Self-management support needs to address the social and emotional issues along with the educational and skill-building functions. Some typical questions that arise: Does a person with poorly controlled hypertension reduce salt intake? Does she have easy access to a pharmacy? Who in someone's life cares if he is taking his medications? Is he too depressed to care that his high blood pressure might cause a stroke?

Depression leads to apathy, inattentiveness, and fatigue, which can impair a cardiac patient’s physical conditioning. Depression is also an independent risk factor for cardiac morbidity and mortality. Depressed patients with diabetes have more days of nonadherence to diet and oral medications, leading to 86 percent higher health care costs.

Health care delivery systems, however, place a barrier between emotional and physical conditions. Behavioral health and primary care services are frequently separated geographically, administratively, and by payment source. Receiving little counseling training, facing time pressures, and gaining low reimbursement for counseling, primary care clinicians often resort to pharmaceutical treatment before assisting patients with the emotional causes of poor self-management. These problems have sparked a movement to integrate behavioral and primary care services. The three models described below comfortably integrate behavioral health self-management support into primary care settings.

HAMILTON, ONTARIO
FAMILY HEALTH TEAM BEHAVIORAL HEALTH PROGRAM
Before 1994, Southern Ontario family physicians had low detection and treatment rates for behavioral health conditions in people with comorbid chronic disease. The Hamilton Family Health Team reorganized how it provides behavioral health support to its primary care patients. The model has become Canada’s national prototype for integrating behavioral health services into family health sites. It links support for patients facing psychosocial stressors and common mental health conditions such as depression, anxiety, and substance abuse to other types of chronic disease self-management support. What began with 45 teams in 1994 expanded by 2008 to 80 practices at 105 sites that serve Hamilton, a community of about 500,000. The program director is Nick Kates, a highly awarded community and social psychiatrist.

Family Health Teams are made up of family doctors, mental health workers, peer health workers, dieticians, pharmacists, nurses, care navigators, diabetes educators, and community agency representatives. These teams provide chronic disease management using registry-based population care and they collaborate with patients as team members. Physicians focus on complex medical problems, while other team members support other health needs.

At the start of the clinic day, the physician meets with the counselor to review patients needing behavioral health services, including mental health interventions, help with emotional problems associated with chronic disease, or support for healthy behavior change. Physicians, dieticians, and pharmacists informally contact the counselor.
when they need help. Counselors are mostly nurses or social workers, with a few community health workers. They see patients for one to six sessions and then become available for new patients.\textsuperscript{60}

Patients with depression, diabetes, or both may be matched with peer support workers who talk to them every few weeks in person, by phone, or by email. Education and self-management support groups address obesity, chronic pain, anxiety, depression, and stress. Family physicians and counselors express great satisfaction with this collaborative care model. A family physician said, “Knowing we have great backup makes us less resistant to explore social issues during a busy clinic.” Patient satisfaction exceeds 90 percent.\textsuperscript{68–62}

Canadian provincial governments are the health insurers for the entire population. Behavioral health integration is financed through supplementary funding provided by the Ontario Ministry of Health and Long-term Care.\textsuperscript{63} Integration of behavioral health services into primary care has reduced referrals to mental health specialty clinics by 66 percent, saving money for the provincial government.\textsuperscript{64}

\textbf{MAINEHEALTH}

\textbf{PRIMARY CARE BEHAVIORAL HEALTH PROGRAM}

MaineHealth is a nonprofit integrated healthcare delivery network that includes multiple public and private health care providers.\textsuperscript{65} Its program to integrate behavioral health into primary care adapts the MacArthur Initiative on Depression and Primary Care’s Three Component Model (3CM).\textsuperscript{66} The medical director is Neil Korsen, M.D., a family physician and researcher.

Depression in primary care presents a serious barrier to self-management of chronic conditions and itself requires self-management support.\textsuperscript{55,67,68} The Re-Engineering Systems in Primary Care Treatment of Depression (RESPECT-Depression) study developed the 3CM, which combines a prepared primary care practice, depression care management using an onsite care manager, and a consultant psychiatrist.\textsuperscript{69} MaineHealth linked the 3CM to the Chronic Care Model and built a depression module into its registry.

The new model was tested in 20 MaineHealth primary care practices over a three-year period.\textsuperscript{70} Care managers are nurses or social workers who provide depression treatment education, assist with self-care action plans and treatment adherence, and perform telephone follow-up and clinic visits. Twenty-five care managers support 199 primary care clinicians in 69 practices. Over a 12-month period, 1,000 patients with depression received care management services.\textsuperscript{66,70}

A nine-minute video shows how a care manager and primary care physician partner to help a depressed person with diabetes who is not taking her medications. The physician brings in a social worker care manager for a “warm handoff.” The care manager explores the patient’s social support, offers to link the patient to a diabetes care manager, elicits the patient’s depression symptoms, and sets up a future meeting. The care manager shares the plan with the physician, and they meet together with the patient for a brief wrap-up.\textsuperscript{71}

MaineHealth funds the program through member organization contributions, grants, and investment income. Financial incentives reward primary care providers for completing depression care training and providing depression screening. Maine Medical Center primary care practices have received more than $250,000 in financial incentives over four years for quality depression care.\textsuperscript{72,73}
Self-management support may help patients with poor drinking habits and problem recreational drug use move away from unhealthy behaviors. Without such support, problem drinkers and drug users, like patients with prediabetes and borderline hypertension, can progress into full-blown chronic disease or addiction. Understanding this, the Substance Abuse and Mental Health Services Administration (SAMHSA) has promoted an initiative to educate primary care and emergency department providers in an evidence-based screening, brief intervention, referral, and treatment model (SBIRT).

SBIRT uses a few quick screening questions to identify individuals with problem substance use that has not yet progressed into chronic addictive illness. It employs five- to 20-minute motivational interviewing interventions such as an action plan to cut back weekly drinking to healthy limits. Multiple brief sessions over time increase the likelihood of success regardless of whether a patient is ready to change. The model also applies to patients with diabetes and cardiovascular risk factors who have difficulty with healthy behavior change. Ten states, including California, have received SBIRT grants.

The Wisconsin Initiative to Promote Healthy Lifestyles (WIPHL), spearheaded by family physician Richard Brown, M.D., focuses on screening and brief intervention within primary care settings for problem drinkers and drug users using SBIRT. WIPHL opened in 21 primary care clinics in 2007 with a five-year SAMHSA grant.

Nurses or MAs administer four questions about alcohol and drug use as part of routine primary care visits. Patients scoring positive then meet with an onsite health educator, who provides one to three 20-minute interventions using motivational interviewing and stages-of-change protocols. WIPHL is expanding to address tobacco use, poor diet, lack of exercise, depression, and domestic violence.

WIPHL’s health educators have bachelor’s degrees and at least two years of human services experience, and they must pass a three-week intensive training including a written final exam and observed interviews. They are supervised through weekly conference calls and reviews of audiotaped sessions. The program gets high marks from physicians and patients, and it has reduced regular and maximal alcohol consumption. The Mesa Grande study of 360 clinical trials of alcohol treatments concluded that SBIRT is cost-effective.

In January 2010, Wisconsin Medicaid began to cover SBIRT for its members, and other insurance plans may follow suit. WIPHL’s screening and treatment cost of $247 per patient yields savings of nearly $1,000 in health care and criminal justice costs, for a benefit-cost ratio of 5.6:1.

Discussion of Behavioral Health Models
These three primary care-based behavioral health self-management support models break down the barriers between behavioral and physical care. If depression, anxiety, and substance use problems are not addressed within primary care, they are more likely to undermine the self-management of other chronic conditions. Moreover, these models diminish the stigma associated with behavioral health conditions by normalizing them as part of routine primary care, thereby allowing patients to feel more comfortable disclosing their psychosocial barriers to self-management of their health.
V. Volunteer Premed Health Coach Model

Volunteer-based projects provide one solution for low-resource safety-net institutions that find it difficult to fund self-management support. A volunteer project requires institutional support, a dedicated leader, a committed cohort of volunteers, and tasks appropriate to the volunteers’ skill levels. Self-management support volunteers may be peer coaches who are successful chronic illness self-managers or persons seeking health care experience for career development. A primary care medicine residency based at Highland Hospital, part of the public Alameda County Medical Center in Oakland, California, tapped the latter pool of volunteers in 2008 to pilot a premedical student volunteer health coach program. In addition to providing low-cost access to self-management support, a volunteer premed project trains future physicians in self-management support skills and team-based primary care.

The Highland Hospital volunteer model is based on the San Francisco General Hospital Family Medicine Residency health coach model, which extends the traditional job functions of MAs and other health workers to health coaching. Coaches are paired with clinicians in teamlets. They engage patients in goal-setting, encouraging them to come up with small, realistic action plans to modify health behaviors, including diet, exercise, and medication management. Coaches also check patients’ understanding of the clinician’s advice. They may assist patients in navigating the health system and provide between-visit telephone follow-up.

At Highland Hospital, the teamlet model was modified by using volunteer premed students instead of salaried health workers. Highland’s model links volunteer premed health coaches with primary care medicine residents, while MAs continue in their traditional job functions. Premed health coach training is based on a brief motivational interviewing curriculum.

Premedical student volunteers are recruited through email announcements to local college post-baccalaureate and undergraduate premed societies that link to the project’s Web site. The volunteers commit to a five-hour weekly shift throughout the nine-month school year. They participate in an initial eight-hour training, weekly group case supervision, and direct observation training with a primary care medicine faculty psychiatrist. The project has expanded from five coaches in 2008 to 11 in 2010.

After the physician and student discuss the patient, the student observes the patient-doctor interview. While the physician performs the physical exam, the student leaves to gather self-management support resources from a Web site maintained by the project’s director. When the resident physician leaves the patient to discuss the case with supervising faculty, the volunteer coaches the patient. After observing the physician wrap-up with the patient, the coach remains in the room to close the loop. This workflow is often adjusted to accommodate the physician’s working style.

Seventy-two percent of 43 patients who made an action plan self-reported health behavior change adherence three months after they received initial coaching and phone follow-up. These patients reported that coaching successfully assisted behavior change. Coaching also improved satisfaction for medical residents. The premed student volunteers reported that the coaching experience is fulfilling...
because they have become vital primary care team members. Most reported that the experience enhanced their interest in primary care careers.96

Problems with the volunteer premed health coach model include intermittent availability due to exam schedules, medical school interviews, and summer breaks. While some students come from the public hospital’s underserved communities, most are not as well-matched to patients as MAs or peer coaches.

The premed coaching model has the potential to spread, possibly through a program that would require regional training collaboratives to recruit premed volunteers and to train both volunteers and clinician supervisors.
VI. The Business Case

The business case for self-management support can be considered from a number of perspectives. For patients and the society as a whole, the business case rests on the reduction of expensive long-term consequences of chronic disease.

For payers, both public and private, the business case depends on reducing expensive hospitalizations and emergency department use. These savings should exceed the additional costs of improved care, including higher pharmacy costs created by improved medication adherence.

The experience of Project Dulce, cited above, demonstrates that the implementation of an effective self-management support program for patients with diabetes can be cost-neutral. Project Dulce’s final cost data show that the reduction in inpatient and emergency department costs was sufficient to pay for the entire program of nurse care management and peer education and for the additional costs of medications created by improved medication adherence. Thus a business case does exist for an effective self-management support program. Payers can learn from Project Dulce’s experience that investing in primary care-based self-management support is financially sound.

The business case for primary care practices depends on how the practice is paid for its services. Most private practices are paid fee-for-service. If a practice can find ways to bill and collect for self-management support, it can earn money from it. Mercy Clinics wraps self-management support within other activities that increase revenues in a commercial and Medicare fee-for-service environment. Private practices may be able to adopt the Mercy Clinics model to financially sustain self-management support.

If the practice is paid by capitation or is globally budgeted, as in integrated delivery systems such as Kaiser Permanente or the Veterans Health Administration, self-management support represents a personnel expense. Therefore, if lower-cost personnel such as MAs can reduce the time spent by higher-cost personnel such as physicians, self-management support can save money. Since most physicians currently spend little or no time providing self-management support, provision of this service by others improves care but does not reduce physician time.97,98

Overall, self-management support represents a cost rather than a savings in an integrated delivery system. Even the reduced hospital and emergency department use that may result from self-management support and other chronic care improvements may not save money for the system because of the increased medication costs that result. The cost analysis of Kaiser Permanente’s chronic care program, which included intensive self-management support, found an increase in costs, particularly pharmacy costs, for patients receiving chronic care management.99

FQHCs use a reimbursement model that is a variant on fee-for-service. For patients on Medicaid, FQHCs generally receive an augmented payment for services provided by clinicians (physicians, nurse practitioners, and physician assistants). For uninsured patients, FQHCs may receive a small payment from the patient, or they may provide the service without reimbursement. Because only clinician-provided services are reimbursed, most FQHCs are limited in
their capacity to hire sufficient nonclinician staff to provide self-management support.

Two emerging payment modes may help solve the business case challenges. An increasing number of payers are making pay-for-performance bonus payments to practices that improve process or outcome measures for preventive and chronic care, offering a potential avenue for payment of staff to provide self-management support. Pay-for-performance has contributed substantially to Mercy Clinics’ positive business case.

The other emerging payment innovation is the patient-centered medical home model. Some Medicaid programs and commercial insurers are making monthly per patient payments on top of fee-for-service. These additional funds can help support staff providing self-management support, especially if pay-for-performance is added to the payment mix. The fee-for-service plus monthly per member payments plus pay-for-performance model represents the best chance for self-management support to become financially sustainable.

Among the 38 primary care practices surveyed in detail for this paper, 13 practices reported that self-management support will be financially sustainable. Most of these responses assumed reform of the payment mechanism for primary care. Most made the assumption that self-management support saves money for payers and for integrated delivery systems and that primary care practices will be rewarded for creating those savings.
VII. Conclusion

Self-management support has come a long way in the ten years since it entered the health care vocabulary. The National Committee for Quality Assurance patient-centered medical home standards include self-management support as a required component of practice improvement. Excellent training curricula are available. Primary care practices are universally expected to monitor and try to control blood pressure, cholesterol level, and HbA1c levels to reduce cardiovascular risk.

Of the 38 early-adopter practices surveyed, 37 were engaged in self-management support for at least some of their chronic condition patients. Prevalence in other practices is not known, but the widespread adoption of the Chronic Care Model, of which self-management support is an important component, makes it likely that self-management support has reached a large number of primary care sites across the country.

Further spread is desirable and likely. Its speed will depend on how effectively the following issues are addressed:

- **Training for staff who could provide self-management support and for the entire team.** A number of training programs exist, but important components are still insufficient or lacking: enough trainers to lead these curricula; an infrastructure for training; and funds to support the training.

- **Payment by Medicare, Medicaid, and commercial insurers.** Few early-adopter primary care practices have a financially sustainable model for self-management support, and payment reform will be needed to make it financially sustainable. The additional payments that may come to practices qualifying as patient-centered medical homes should help to make self-management support financially viable.

- **Education of senior leadership.** If the patient-centered medical home with augmented payments from payers comes to fruition, senior leadership is more likely to embrace self-management support.

- **Staff with protected time.** This barrier is both a business case and a culture change issue. If a financial model for self-management support can be found, staff time to provide the service is likely to be freed up. In the absence of a financial model, practices will need to initiate a culture change by which all personnel are expected to provide self-management support as part of their work.

- **A team structure that links to specific clinicians and defined panels of patients.** Some primary care practices are attempting to implement teams that feel responsible for the health of a defined panel of patients. Yet many physicians are nervous about delegating responsibility to other team members, especially MAs trained as health coaches. Pilot teams with enthusiastic physicians and highly competent team members can help persuade other physicians that the delegation of responsibility can be achieved without lowering quality.

- **Integration of primary care and behavioral health that addresses behavioral health barriers to health behavior change.** The impetus for
such integration is spreading rapidly across the country, which is a positive development for the widespread adoption of self-management support.

- **Self-management support curriculum in health science schools.** Curricula that designate self-management support as a routine function of clinical care could serve as a vehicle for spreading innovations being piloted by early-adopter schools.

  The survey of early-adopter practices and the case studies described in this report suggest that benefits to patients, payers, and society are substantial enough that primary care practices will increasingly seek to provide self-management support in a way that is financially and culturally sustainable for their organization.
Endnotes


70. MaineHealth, Your Care Manager, [www.mainhealth.com](http://www.mainhealth.com).

71. MaineHealth training video, [my.mmc.org/media/mainhealth/mhipc](http://my.mmc.org/media/mainhealth/mhipc).


75. Screening, Brief Intervention, and Referral to Treatment, SBIRT. [SAMHSA](http://sbirt.samhsa.gov).


93. Primary Care Behavioral Health, [www.pcbehavioralhealth.com](http://www.pcbehavioralhealth.com).


Appendix A: Self-Management Support Training Curricula

Self-management support involves relatively new content that is rarely taught in depth in medical, nursing, or pharmacy schools, though it increasingly appears in courses in health education. If self-management support is to be widely adopted, training is critical for senior leaders, existing health care workers, and students. Examples of training curricula include the following:

Chronic Disease Self-Management Support Toolkit. Created by Vancouver Coastal Health, this toolkit is not currently online. Contact VCH for a copy.
www.vch.ca

Coaching Patients for Successful Self-Management. This video, produced by the California HealthCare Foundation (CHCF), focuses on supporting healthy behavior change and ensuring that patients are taking their medications appropriately.
www.chcf.org

Diabetes Literacy and Numeracy Education Toolkit. Developed by the Vanderbilt Diabetes Research and Training Center, this toolkit is a compilation of training and patient care tools.
www.mc.vanderbilt.edu

Motivating Change Online Programs. Created by Kaiser Permanente Regional Health Education Online Learning, these modules address medication adherence, brief negotiation, and chronic conditions including diabetes, hypertension, congestive heart failure, and asthma.
kphealtheducation.org

www.newhealthpartnerships.org

The Planned Care Visit. This video series, created by Improving Chronic Illness Care, includes “The Patient Experience,” “The Provider Experience,” and “The Self-Management Interview.”
www.improvingchroniccare.org

The Self Management Toolkit. This Web-based program was developed by the South West Local Health Integration Network, Ontario, Canada.
www.selfmanagementtoolkit.ca

Techniques for Effective Patient Self-Management. This CHCF video provides strategies and tools that busy clinicians can use to help patients adopt healthy behaviors.
www.chcf.org

The Training Curriculum for Health Coaches. This comprehensive curriculum was created by the University of California, San Francisco Center for Excellence in Primary Care. It contains detailed plans and dialogues based on highly interactive training sessions.
familymedicine.medschool.ucsf.edu/cepc

Additional Materials
Other materials on self-management support can be found on the following Web sites:
Stanford Patient Education Research Center
patienteducation.stanford.edu

Institute for HealthCare Improvement
www.ihi.org

Institute for Healthcare Communication
www.healthcarecomm.org

Institute for Patient- and Family-Centered Care
www.ipfcc.org

Robert Wood Johnson Foundation
www.rwjf.org

California HealthCare Foundation
www.chcf.org
Appendix B: Survey of Early Adopters of Self-Management Support:
Questions and Responses

Forty-two primary care organizations that are early adopters of self-management support for patients with chronic conditions were sent an email survey with six questions:

1. Are you providing self-management support (health coaching) for some of your patients with chronic conditions? If so, which chronic conditions?
   ___ Yes ___ No
   Conditions: ________________________________

2. Can you estimate what percent of your patients with these conditions are receiving self-management support?
   ___ Many ___ Some ___ Few

3. Who is providing the self-management support?
   ___ RN ___ MA ___ Health educator ___ Pharmacist ___ Nutritionist ___ NP/PA ___ MD

4. Can you estimate how much protected time your personnel have to provide self-management support?
   ___ Full time for one or more people
   ___ 10 – 20 hours per week for one or more people
   ___ Very little time

5. Is the providing of self-management support an expense for your organization or can you receive revenues for providing self-management support?
   ___ Expense ___ We receive revenues
   (please say how you receive revenues)

6. Is providing self-management support financially sustainable for your organization?
   ___ Yes (please explain briefly) ___ No

Thirty-eight organizations participated in the survey (90 percent return). The following is a tabulation of their responses. For questions 1 and 3, the figures do not add up to 38 since organizations provided multiple answers.

<table>
<thead>
<tr>
<th>PROVIDING SELF-MANAGEMENT SUPPORT</th>
<th>Number</th>
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<tr>
<td>Yes</td>
<td>37</td>
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<tr>
<td>No, due to lack of funds</td>
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<table>
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<tr>
<th>PROVIDING SELF-MANAGEMENT SUPPORT FOR:</th>
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<tr>
<td>Diabetes</td>
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<tr>
<td>Hypertension</td>
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<td>Obesity</td>
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<tr>
<td>Asthma and/or chronic pulmonary disease</td>
<td>8</td>
</tr>
<tr>
<td>Congestive heart failure</td>
<td>8</td>
</tr>
<tr>
<td>Depression</td>
<td>6</td>
</tr>
<tr>
<td>Chronic pain</td>
<td>6</td>
</tr>
<tr>
<td>Patient-centered rather than disease-centered approach, providing self-management support to people with multiple chronic conditions</td>
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<table>
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<tr>
<th>NUMBER OF PATIENTS RECEIVING SELF-MANAGEMENT SUPPORT</th>
<th>Number</th>
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<tr>
<td>Few</td>
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</tr>
<tr>
<td>Some</td>
<td>19</td>
</tr>
<tr>
<td>Many of the patients with the chronic conditions for which the organization provides self-management support</td>
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TEAM MEMBERS PROVIDING SELF-MANAGEMENT SUPPORT

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>RNs</td>
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<tr>
<td>MDs</td>
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<tr>
<td>Nutritionists</td>
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</tr>
<tr>
<td>Health educators</td>
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<td>Nurse practitioners/physician assistants</td>
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</tr>
<tr>
<td>Medical assistants</td>
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</tr>
<tr>
<td>Community health workers/promotoras</td>
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<tr>
<td>Pharmacists</td>
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</tr>
<tr>
<td>Social workers</td>
<td>6</td>
</tr>
<tr>
<td>Behavioral health professionals</td>
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</tr>
<tr>
<td>Peer coaches</td>
<td>2</td>
</tr>
<tr>
<td>Volunteer health science students</td>
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<td>All personnel are expected to provide self-management support as part of their work</td>
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AMOUNT OF TIME PROTECTED FOR SELF-MANAGEMENT SUPPORT

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<tr>
<td>One or more people 10–20 hours per week</td>
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<tr>
<td>Very little personnel time</td>
<td>14</td>
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<td>Everyone spends some time providing self-management support</td>
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BUSINESS CASE FOR SELF-MANAGEMENT SUPPORT

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<tr>
<td>Is an expense, but some revenues are collected from some payers for some patients</td>
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<td>Produces revenue in excess of the cost</td>
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ORGANIZATIONS REPORTING WHETHER SELF-MANAGEMENT SUPPORT IS FINANCIALLY SUSTAINABLE

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